BRUHATH BENGALORE MAHANAGARA PALIKE YELAHANKA ZONE

Name of Work :Providing Borewell water pipe lines Water Supply works at ward no.1

Est Cost Rs :51.00 Lakhs

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate/Unit (Rs.)	Amount (Rs.)
	For Borewell								
1	Geophysical investigation of site for sinking borewell for supplying drinking water to the habitation either through the hand pump, MWS or P.W.S.S. by vertical electrical sounding by adopting venner or schlumbergers's method, including reconnaissance survey of geological formation, Geological investigation of existing ground water in vicinity, its quality, quantity & acceptability of the users indicating the location of site, recommended depth of casing pipe required to seal the top unconsolidated formation including an extra depth of 1.0 mtr in consolidated formation for proper seating of casing pipe, depth of drilling required to cover full depth of aquifer proposed to be tapped, probable yield and other information required including transportation of instrument and accessories to work site, engaging technical personal and labour required etc (P.NO-47, I.NO-9.4, PRED 12-13 SR)								
		Each	5				**5.00**	**2065.00**	**10325.00**
2	Sinking of borewell of 165 mm dia clear using super fast hydraulic rig of capacity 250 PSIG & above 900 CMF & above in all strata including over budern upto 20 m. fixing of casing pipes, collars & cap with necessary cutting, threading & welding including transportation of rig and supporting vehicle, crew charges & cost of consumables etc., complete including yield testing at the final depth with minimum working of compressor for one hour(excluding cost of casing pipes, collars, cap etc.,) (P.NO-47, I.NO-9.1, PRED 12-13 SR)								
	0.00 to 50.00 Mtr.	**Mtr**	5	50.00			**250.00**	**315.80**	**78950.00**
	50.00 to 100.00 Mtr.	**Mtr**	5	50.00			**250.00**	**412.60**	**103150.00**
	100.00 to 150.00 Mtr.	**Mtr**	5	50.00			**250.00**	**458.35**	**114587.50**
	150.00 to 200.00 Mtr.	**Mtr**	5	50.00			**250.00**	**484.10**	**121025.00**
	200.00 to 250.00 Mtr.	**Mtr**	5	50.00			**250.00**	**560.32**	**140080.00**
	250.00 to 300.00 Mtr.	**Mtr**	5	50.00			**250.00**	**600.49**	**150122.50**
	300.00 to 350.00 Mtr.	**Mtr**	5	50.00			**250.00**	**622.00**	**155500.00**
3	Supplying of ISI Mark 175 mm nominal bore medium black ERW casing pipe of 5mm thick black electric resistance continous welded midle steel tube material confirming to IS 1387/1993 and manufactured from hot rolled steel skelp/stripes in random length of 4 to 7 mtr both ends threaded confirming to IS 554/1985 one end(including of all taxes) (P.NO-III, I.NO-84, PRED 12-13 SR)								
		Rmt	5	50.00			**250.00**	**1325.00**	**331250.00**
4	Providing and fixing 250mm dia PVC pipe and as per specification and directions. (BWSSB SR 13-14, P.No.53 I.no.1 of sl.no.11.)								
		Rmt	5	6			**30.00**	**1100.00**	**33000.00**
5	175 mm dia M.S. Casing cap (P.NO-III, I.NO-85, PRED 12-13 SR)								
		Each	5				**5.00**	**100.00**	**500.00**
6	supply of 175mm M.S collars each (P.NO-III, I.NO-86, PRED 12-13 SR)								
		Each	5	7.00			**35.00**	**150.00**	**5250.00**
7	Supply & delivery at site brand new texmo/innoval/lubi/sabar /Atalanta/calamal/ waterman/Radha make suitable HP deep well submercible pumpset suitable for vertical installation in 150 dia borewells compressing of single stage or multistage CF pump close coupled by means of stainless steel coupling to suitable HP suitable speed totally enclosed and filled with pure drinking water squirrel cagesubmercible induction motor suitable for operation of 3Ph, 50Hz.380/440 volts AC supply fitted with required accessories such as suction, casing, suction strainers, sand guard. Non return valve etc Complete the pump and motor shall from an integral unit with all the required fittings 15HP/11KW 25 stage (P.NO-XLII, I.NO-41, PWD SR-2018-19)								

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate/Unit (Rs.)	Amount (Rs.)
		Nos	5				5.00	63986.90	319934.50
8	Providing, laying & jointing GI pipes confirming to IS specification of approved make with fittings such as collars bends elbows tees nipples plugs with cuts threads using white lead & threads for joints wherever necessary as per direction including all lead & lift etc,. complete 'A' grade(excluding cost of fittings) 50mm dia GI pipe (PWD SR-2018-19, P.No.92 l.no. 13.6)								
		Rmtr	5	300.00			1500.00	542.72	814080.00
9	Coller								
		Each	5	27.00			135.00	212.00	28620.00
10	Supplying and drawing 3 core PVC Sheathed submersible pump cable manufactured with electrolytic grade copper with flexible copper conductor confirming to table 3 class 5 of IS: 8130-1984 and virgin grade PVC insulation and sheathed suitable for working voltage upto 1100 volts 4 sqmm of 56 strands 0.3mm dia (P.NO-535, I.NO-30 (c), Group A BWSSB 13-14 SR)								
		Rmt	5	285.00			1425.00	164.29	234113.25
11	Supplying & delivery at site brand new / Essen / Lotus sunsines/Adarsh/ Gk controls best indigenous make combine energy meter-cum-control panel board unit of size 1200 x 600 x 300 mm minimum mechanically strong and vermin and water proof the unit shall have two detachable doors suitable for operation on 3ph, 50Hz, 380/440 volts, AC supply with spring loaded latch locking with a key ribs should be provided inside the door , canopy apron and louvers ventilators shall be provided the combine energy mtr cum control panel board unit suitable for operation on 3ph, 50Hz, 380/440 AC supply shall be consisted etc,. completed T panel board shall be fabricated on single unit in the above components panel board for suitable pumpset above components panel board for suitable pumpset above 6.50 HP to 15.00 HP with star delta starter (MR)								
		Nos	5				5.00	14800.00	74000.00
12	Fabricating supplying and mounting MS box of 16 SWG suitable for floor / wall mounting, fully weather proof with provision for better hear description, (providing with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished 2 coats of red oxide primes paint and finally finished with approved colour enamelled metal paint etc,. complete box of 21600 sq cm (P.NO-530, I.NO-39 b, BWSSB SR 13-14)								
	for 1 borewell		5	1100.00	20.00		110000.00		
		Sqm Cm					110000.00	0.34	37400.00
13	Providing & Fixing of clamps set and borewell cap to the pump (MR)								
		No's	5				5.00	1800.00	9000.00
14	Supplying & delivery of brand new best make non return valve of size 50mm as per IS: 778/84 with latest amendments with ISI mark (50mm Gate wheel Valve. (PWD SR-2018-19, P.NO.XXV, Sl.no, 647)								
		No's	10				10.00	1016.95	10169.50
15	Supplying and delivery of brand new best make Gate Valve of size 50mm as per IS: 778/84 with latest amendments with ISI mark . 50mm Gate Valve for distributer pipeline. 50mm dia (PWD SR-2018-19, P.NO.XXVI, Sl.no, 661)								
		No's	10	2.00			20.00	1482.21	29644.17
16	Providing and fixing of 50mm GI Shortbend to motor (PWD SR-2018-19, P.NO.XXXIX, G.I. Pipe Fittings - ISI Standards Table)								
		No's	10				10.00	232.14	2321.40
17	Providing and fixing of 50mm GI union to the motor (PWD SR-2018-19, P.NO.XXXIX, G.I. Pipe Fittings - ISI Standards Table)								
		No's	10				10.00	237.12	2371.20
18	suppling & fixing of 50mm GI Elbow PWD SR 18-19 XXXIX								
		No's	5				5.00	111.80	559.00
19	Labour charges for erection of new /repaired submersible pumpset along with GI pipes (32/50mm) cable (new submersible pumpset if required will be supplied by the department free of cost and released pump set should be handed over to department) including transportation (each length = 6.00m) (P.No - 564, I.No - 3, BWSSB SR 13-14)								
		Per length	5	52.00			260.00	90.64	23566.40

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate/Unit (Rs.)	Amount (Rs.)
20	Erection of combined panel board meter board with all necessary materials and labour including providing CC 1:3:6 foundation bed etc,. Complete for basement out door type. (MR)								
		No's	5				5.00	475.00	2375.00
21	Supplying and fixing miniature circuit breakers/isolators in existing MCB distribution boards using necessary fixing materials and wiring complete as required, 40 to 63 Amps DP (P.NO - 526, I.NO - 13D (a), BWSSB SR 13-14)								
		No's	5				5.00	906.40	4532.00
22	Supplying and laying of L.T.U.G Cable having aluminiumconductor PVC insulated shethed galvanised steel wire/ steel tape armoured cable with PVC outer sheathing 1.1 KV class 4 core 16 sqmm cable (confirming to IS 1554) (P.NO - 553, I.NO - 10 (d), BWSSB SR 13-14)								
		Mtr	5	35.00			175.00	169.95	29741.25
23	Digging of trenches of 0.6mm x 0.50 Mtrs wide refilling the trench to the required ground level and consolidating etc,. Complete sutting road surfaces (P.NO - 554, I.NO - 12 (b), BWSSB SR 13-14)								
		Mtr	5	35.00			175.00	56.65	9913.75
24	Supplying and fixing Class-A GI Pipe on pole/ wall/drain crossing with necessary clamping arrangements for UG Cable of 1.1 KV class 40mm (P.NO - 555, I.NO - 15 (b), BWSSB SR 13-14)								
		Mtr	5	3.00			15.00	249.26	3738.90
25	Supplying and fixing wiring earth electrode for grounding conduits, IC cutouts and other equipments on the meter board using 40mm dia 2.90 mm thick GI pipe 2.5 mtr long buried in a pit,/ the pit should be filled with equal proportion of salt and charocal 150 mm alround the pipe to complete depth the connections from the pipe to the conduit etc,. is to be established though GI wire of size as per ISI specification 7.3.3 of ISI 732 using 12mm dia boalts, nuts washers and checknuts etc,. the pipe shall have 16 through holes of 122mm dia (P.NO - 552, I.NO - 7 , BWSSB SR 13-14)								
		No's	5				5.00	1699.50	8497.50
26	Supply and fixing LT cast iron pot heads suitable for 1.1 KV class 16 sqmmUG cable filled with necessary bitumen/ insulating compound complete with terminals, clamps, bolts nuts and washers etc, (P.NO - 555, I.NO - 16 (b) , BWSSB SR 13-14)								
		No's	5				5.00	271.92	1359.60
27	Supplying shunt capacitor's confirming to IS 2834, 3phase 400/440 volts grade for power factor improvement of roating machinery capacitor in KVAR rating No's. (MR)								
		No's	5				5.00	1350.00	6750.00
28	Providing and fixing Gun Metal Gate wheel valve confirming to IS specification of approved make as per direction including all lead and lift etc,. Complete. 50mm dia (P.NO - 94, I.NO - 13.79.6, PWD SR-2018-19)								
		No's	5				5.00	778.04	3890.20
29	Supplying and fixing of polished wood board made of not less than 15mm thick plank on both sides with planks made out on not more than 2 pieces and fixing the same to wall using tapered inverted wooden plugs screws etc., Size 20 x 20 x 2.5 inches (P.NO - 521, I.NO - 2 (f), BWSSB SR 13-14)								
		No's	5				5.00	311.58	1557.90
0	Erection of pumping machineries PRE SR 12-13 pg 51/10.3.20	No					5.00	900.00	4500.00
1	KPTCL Deposit charges	L/S					5.00	13300.00	66500.00
2	Borewell registration charges per Rs 1000 each for BWSSB						5.00	1000.00	5000.00

Sl. No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate/Unit (Rs.)	Amount (Rs.)
33	KSRB 2-2.2 : Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinery soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications. specification. No. KBS 2.1(b) / 2.3.5(Page No.5 , Item No.2.4,PW,P & IWTD SR 2018-19)								
	Bore well								
	For water line supply		5	138.00	0.70	0.70	338.10		
		cum					**338.10**	**316.94**	**107157.41**
34	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778 having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings this includes jointing of pipes and fittings with one step solvent cement, trenching, refilling & testing of joints complete (external work) 40mm nominal OD pipes (Page No.99, Item No. 13.87.5)								
			5	138.00			690.00		
		Rmt					**690.00**	**309.52**	**213568.80**
35	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778 having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings this includes jointing of pipes and fittings with one step solvent cement, trenching, refilling & testing of joints complete (external work) 25mm nominal OD pipes (Page No. 99, Item No. 13.87.3)								
	for vertical line for taps		15	1.50			22.50		
		Rmt					**22.50**	**189.74**	**4269.15**
36	Providing and fixing Chorinated Poly Venyl Chloride (CPVC) pipes conforming to IS 15778 having thermal stability for hot and cold water supply including all CPVC plain and brass threaded fittings including fixing the pipe with clamp at 1.00 mtr spacing. This includes jointing of pipes and fittings with one step CPVC solvent cement and testing of joints complete (internal work exposed on wall) 20mm nominal OD pipes (Page No.99, Item No. 13.87.2)								
	for public tap connection		15	0.60			9.00		
		Rmt					**9.00**	**154.76**	**1392.84**
37	KSRB 13.6.3-6 : Providing and fixing in position brass gate valve with C.I wheel of approved quality (screwed end) 40mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No.KBS 13.2.6 / 13.3 (Page No.92 Item No. 13.36)								
	For Main line	**Each**	15				15.00		
							15.00	**1102.40**	**16536.00**
38	KSRB 13.6.1-1 : Providing and fixing in position brass bib cock of approved quality 15mm nominal bore including cost of all materials, labour and HOM of equipments with all leads complete as per specifications. Specification No.KBS 13.2.19 / 13.16 (Page No. 91 Item No. 13.23)								
			15				15.00		
		No's					**15.00**	**149.46**	**2241.90**
39	Supplying of 40mm dia Elbows (Page No.XXXIX)								
			15				15.00		
		No's					**15.00**	**76.53**	**1147.98**
40	Supplying of 25mm dia Elbows (Page No.XXXIX)								
			15				15.00		
		No's					**15.00**	**36.15**	**542.19**
41	Supplying of 40mm dia Union (Page No.XXXIX)								
			15				15.00		
		No's					**15.00**	**156.67**	**2350.02**
42	Supplying of 25mm dia Union (Page No.XXXIX)								

Sl.No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate/Unit (Rs.)	Amount (Rs.)
			15				15.00		
		No's					**15.00**	**82.57**	**1238.61**
43	Supplying of 25mm dia Nipple (Page No.XXXIX)								
			15				15.00		
		No's					**15.00**	**34.03**	**510.39**
44	Supplying of 25mm dia Reducer Elbow (Page No.XXXIX)								
			15				15.00		
		No's					**15.00**	**43.46**	**651.90**
45	Supplying of 25mm dia Reducer socket (Page No.XXXIX)								
			15				15.00		
		No's					**15.00**	**29.83**	**447.43**
46	Supplying of 40mm dia Tees (Page No.XXXIX)								
			15				15.00		
		No's					**15.00**	**106.32**	**1594.77**
47	KSRRB M400- Wet Mix Macadam KSRRB M400-17. Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed method of tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications. MORTH Specification No. 406								
	Bore well								
	For water line supply		5	138.00	0.70	0.15	72.45		
		cum					**72.45**	**2001.28**	**144992.74**
48	KSRB 4-1.2 : Providing and laying in position plain cement concrete of mix 1:3:6 with OPC cement @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms^thick, well compacted, in foundation including cost of all materials, labour, HOM of machinery, curing complete as per specifications.Specification No. KBS 4.1, 4.2.(P.No-12,I No-4.2)								
	Bore well								
	For water line supply		5	138.00	0.70	0.15	72.45		
		cum					**72.45**	**5505.64**	**398883.62**
49	Providing and laying cement concrete using 20 mm and down size granite coarse aggregates and fine aggregates of ready mixed concrete (RMC) for R.C.C works laid in 15 cms thick layers and well compacted vibrating, curing, finishing with necessary cement mortar, with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.)(Page No. 18.tem No 4.49.1,PW,P & IWTD SR 2018-19)								
	For Cauvery water line supply								
	Bore well								
	For water line supply		5	138.00	0.70	0.15	72.45		
		cum					**72.45**	**5770.64**	**418082.87**
50	Filling available earth around pipe lines cable in layers not exceeding 20cms, in depth compacting each deposited layer by ramming after watering with lead upto 50m and lift upto 1.5m including cost all labour complete as per specifications (Page No.6 Item No. 2.10)PW,P&IWTD SR 2018-19								
	Consider 60% of Qty vide No.33						196.10		
		Cum					**196.10**	**213.06**	41780.64
							Total construction cost		4335264.77
							GST Charges 12%		520231.77
							Sub Total		4855496.55
							Towards PMC Cost		48554.97
							KRIDL Charges 4%		194219.86

S.No.	Description of work	Unit	No.	Length (m)	Breadth (m)	Depth (m)	Quantity	Rate/Unit (Rs.)	Amount (Rs.)
	Miscellaneous and other unforseen charges								1728.63
								Total	5100000.00

(Rupees Fifty one Lakhs Only)

CERTIFICATE

1) Certified that I have inspected the spot & Prepared the Estimate according to the necessity & site conditions.

2) Certified that the work is not split up.

3) Certified that the estimate is prepared on the basis of CSR of PW,P & IWTD, Bangalore Circle, Bangalore for the year 2018-19

4) Certified that Adequate & necessary provisions have been made in the estimate.

5) Certified that the above area comes under BBMP limits.

Assistant Engineer
Ward No-01

Assistant Executive Engineer
Yelahanka Old town Sub Division
Bangalore-64

Executive Engineer
Yelahanka Division
Bangalore-64

Administrative Sanction for Rs. 51.00 lacs
Fifty one Lakhs
only
is accorded under head P.1878
-2018 19
registered as CE No. ..... Subject
conditions contained in encl. ...emo
No. CE/AA/05/19-20 Dt. 27.5.19

Executive Engineer

Technical Sanction
Accorded For RSSI wo lacs only
Head of A/C P1875
CER NO :..24..... Dt 27.05.2019

TA CE (YNK).